

REMARKS/ARGUMENTS

The Office Action mailed March 17, 2005 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Claims 1-13 have been amended to overcome the 35 U.S.C. §112 issues or to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the specification, figures, and original claims. No new matter has been added.

The specification and abstract have been amended to correct minor editorial problems. It is noted that the Examiner has objected to the drawings in the Office Action Summary, however, no explanation for the objection was provided. No new matter has been added.

Informal Objections

Abstract

The abstract was objected to because it has more than one paragraph. The abstract has been amended to one paragraph. It is respectfully requested that this objection be withdrawn.

Disclosure

The disclosure was objected to because the term “parameterisable” is not a proper word. The specification and claims have been amended to replace “parameterisable” with “adjustable”.

It is respectfully requested that this objection be withdrawn.

The 35 U.S.C. § 112, Second Paragraph Rejection

Claims 1-13 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention. This objection is respectfully traversed.

Specifically, the Office Action states:

- a. Several terms lacked proper antecedent basis in Claims 1-3, 7 and 8. Claims 1-2, 7 and 8 have been amended to correct for proper antecedent basis.
- b. The claim language is unclear in Claims 1, 2, 7-8, and 10 because of the lack and misuse of punctuation. Claims 1, 2, 7-8 and 10 have been amended to correct for punctuation.
- c. Various words and terms were unclear in Claims 1, 3, 6-7, and 10. Claims 1, 3, 6-7, and 10 have been amended to address the terms and questions set forth in the Office Action.
- d. It was uncertain whether “it” refers to the “value” in Claim 2. Claim 2 has been amended to specify that “it” referred to “value”.
- e. In Claim 8, “the time spend by the outgoing task during the observation window” renders the claim indefinite and unclear. Claim 8 has been amended to clarify that “the time spent by the first task during the observation window is calculated.”
- f. The numerals in Claim 11 rendered the claim indefinite. Claim 11 has been amended to delete the numerals.
- g. Claims 12 and 13 were unclear and the abbreviation of “ATSU” needed to be expanded. Claims 12 and 13 have been amended to clarify the claim and expand the term ATSU to “Air Traffic Service Unit”.

The 35 U.S.C. § 103 Rejection

Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Baker-Harvey (USP 6,385,638) among which claims 1 and 11 are independent claims. This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.¹

Amended Claim 1

Specifically, the Office Action contends that the elements of the presently claimed invention are disclosed in Baker-Harvey except that Baker-Harvey does not teach a scheduler guarantees a minimum execution time for the lower priority tasks. The Office Action further contends that Baker-Harvey teaches “a method that guarantees each task will always be able to run at least its minimum quality of service or its own defined minimum times (abstract, lines 7-9; col.2, lines 19-21)” and that it would be obvious to one having ordinary skill in the art at the time of the invention to “recognize that the step guarantees defined minimum execution time for the tasks in Baker-Harvey’s system could include a guarantee for a low priority task because this will improve the versatility of Baker-Harvey’s system by having priority as a factor for guarantee execution time.” Applicant respectfully disagrees for the reasons, among others, set forth below.

Amended Claim 1 provides for:

Real time multi-task operating process in which a set of fixed adjustable duration observation windows are defined, said process including:

¹ M.P.E.P § 2143.

- an allocation stage, in each observation window, of a maximum execution duration for each task, during which a scheduler guarantees a minimum execution time for lower priority tasks;
- a calculation stage for the time used by each task during each observation window; and
- a sanction stage during which the tasks, which exceed their quota in a given observation window, are sanctioned and can only return to a central resource unit during the following observation window.

The Office Action cites Fig. 2 of Baker-Harvey as evidence of a fixed adjustable duration observation windows. However, it is unclear from the figure or the specification whether the observation windows of Baker-Harvey are adjustable and Applicant is unclear how the fixed adjustable duration observation windows is illustrated in Fig. 2.

The Office Action cites lines 7-9 of the abstract and col. 2, lines 19-21 as evidence of a method that guarantees each task will always be able to run at least its minimum quality of service of its own defined minimum times. Application respectfully disagrees. Baker-Harvey merely provides for a “system and method [that] guarantees that each task will always be able to run at least its minimal quality of service.” (Abstract, lines 7-9). “When a task is granted admission, it is guaranteed to get at least its own defined minimum times until it is terminated.” (Col. 2, lines 19-21). Baker-Harvey discloses that when a task is granted, it is guaranteed to get at least its own defined minimum times, but does not teach or disclose a minimum execution time for lower priority tasks as provided in Claim 1.

Moreover, Baker-Harvey does not teach or suggest “an allocation stage, in each observation window, of a maximum execution duration for each task”. Nor does Baker-Harvey disclose the allocation stage, calculation stage, or sanction stage occurring in the observation windows as provided in amended Claim 1.

Accordingly, since there is no reasonable expectation of success that Baker-Harvey will result in the claimed invention and since Baker-Harvey does not teach or suggest all the claim

limitations of Claim 1, it can not be said to anticipate the claimed invention. Thus, it is respectfully requested that this rejection be withdrawn.

As to dependent Claims 2-10, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

Amended Claim 11

The Office Action states that “Baker-Harvey teaches the invention substantially as claimed including a surveillance module (32) which contains the code of a rerouting procedure for putting in place rerouting points (col. 1, lines 51-52), a functions interface accessible by a supervision tasks (30) (col. 3, lines 31-34), a time management unit (15) (col. 2, lines 1-8), and a scheduler (38) (Col. 1, lines 59).” The Office Action equates the Policy Box of Baker-Harvey to the surveillance module of Claim 11. Applicant respectfully disagrees.

Amended Claim 11 provides for:

Real time multi-task operating system including a surveillance module which contains the code of a rerouting procedure for putting in place rerouting points, a functions interface accessible by a supervision task, a time management unit and a scheduler.

As provided for in the Specification, a “surveillance module 32 enables (arrow 33) an adjustable surveillance and sends (arrow 34) information on the status of tasks. It also enables (arrow 35):

- dating of events.
- control of use of central resource unit.
- A sanction.

It receives (arrow 37) IT interrupts of the software counter for the start of each observation window.” (Specification, pages 9, lines 17-28 through page 10, lines 1-3).

On the other hand, Baker-Harvey teaches a Policy Box “which interacts with ...the Resource Manger when there is insufficient time to meet the requests of all tasks.” (col. 1, lines 51-52). The Policy Box merely interacts with the Resource Manager and does not “contain the code of a rerouting procedure for putting in place rerouting points” as claimed in Claim 11. Thus, the Policy Box can not be equated to the surveillance module of Claim 11.

Accordingly, since there is no reasonable expectation of success that Baker-Harvey will result in the claimed invention and since Baker-Harvey does not teach or suggest all the claim limitations of Claim 11, it can not be said to anticipate the claimed invention. Thus, it is respectfully requested that this rejection be withdrawn.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

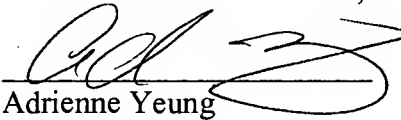
It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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